

ABSTRACT OF THE DISCLOSURE

A method for determining the frequency of current ripples contained in the armature current signal of a commutated direct current (DC) motor includes determining frequency spectral results of the current signal and of a motor electric operating parameter. The frequency spectral results are subtracted from one another to determine the frequency spectral result of the current ripples contained in the current signal. The current ripple frequency is determined from the frequency spectral result of the current ripples contained in the current signal. The operating parameter may be the armature voltage signal, or the armature current signal at a different motor operating state than the motor operating state of the current signal used in the step of determining the current signal frequency spectral result. The rotational speed of a motor shaft is determined based on the current ripple frequency. The shaft rotational position is determined based on the rotational shaft speed.